

## CLAIMS

What is claimed is:

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1. A method of inhibiting delivery of atrial therapy, comprising:  
developing atrial intervals and ventricular intervals from sensed atrial and ventricular events, respectively;  
computing a representative atrial interval rate and a representative ventricular interval rate using a predetermined number of the atrial and ventricular intervals, respectively;  
calculating an average atrial rate and an average ventricular rate using the representative atrial and ventricular interval rates, respectively; and  
inhibiting delivery of atrial therapy if the average atrial rate fails to exceed the average ventricular rate by at least a predetermined factor.

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  2. The method of claim 1, wherein calculating the average atrial and ventricular rates comprises calculating the average atrial and ventricular rates on a beat per minute basis using the representative atrial and ventricular interval rates.

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  3. The method of claim 1, wherein the predetermined number of the atrial and ventricular intervals is between 4 and 60 of the most recent atrial and ventricular intervals, respectively.

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  4. The method of claim 1, wherein the predetermined number of the atrial and ventricular intervals is about 10, respectively.

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  5. The method of claim 1, wherein the predetermined factor is at least 105 percent.

6. The method of claim 1, wherein:  
calculating the average atrial and ventricular rates further comprises  
calculating the average atrial and ventricular rates on a beat per minute basis using the  
representative atrial and ventricular interval rates; and  
5 the predetermined factor is between 10 and 30 beats per minute.
7. The method of claim 1, wherein:  
calculating the average atrial and ventricular rates further comprises  
calculating the average atrial and ventricular rates on a beat per minute basis using the  
representative atrial and ventricular interval rates; and  
10 the predetermined factor is about 20 beats per minute.
8. The method of claim 1, wherein the representative atrial and ventricular  
interval rates are computed by computing an average of the predetermined number of  
the atrial and ventricular intervals, respectively.  
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9. The method of claim 1, wherein the representative atrial and ventricular  
interval rates are computed by computing a median of the predetermined number of the  
atrial and ventricular intervals, respectively.  
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10. The method of claim 1, wherein the representative atrial and ventricular  
interval rates are computed by computing a mean of the predetermined number of the  
atrial and ventricular intervals, respectively.
- 25 11. The method of claim 1, further comprising enabling delivery of atrial  
therapy if the average atrial rate exceeds the average ventricular rate by at least the  
predetermined factor.

12. A method of inhibiting delivery of atrial therapy, comprising:  
developing atrial intervals and ventricular intervals from sensed atrial and  
ventricular events, respectively;  
calculating an average atrial rate and an average ventricular rate  
5 developed from a predetermined number of the atrial and ventricular intervals,  
respectively; and  
inhibiting delivery of atrial therapy if the average atrial rate fails to exceed  
the average ventricular rate by at least a predetermined factor.
- 10 13. The method of claim 12, wherein calculating the average atrial and  
ventricular rates further comprises calculating the average atrial and ventricular rates on  
a beat per minute basis using an average of the predetermined number of the atrial and  
ventricular intervals, respectively.
- 15 14. The method of claim 12, wherein calculating the average atrial and  
ventricular rates further comprises calculating the average atrial and ventricular rates on  
a beat per minute basis using a median of the predetermined number of the atrial and  
ventricular intervals, respectively.
- 20 15. The method of claim 12, wherein calculating the average atrial and  
ventricular rates further comprises calculating the average atrial and ventricular rates on  
a beat per minute basis using a mean of the predetermined number of the atrial and  
ventricular intervals, respectively.
- 25 16. The method of claim 12, wherein calculating the average atrial and  
ventricular rates comprises calculating the average atrial and ventricular rates using a  
number n of the atrial intervals and a number m of the ventricular intervals developed  
during a predetermined time period.

17. The method of claim 12, wherein calculating the average atrial and ventricular rates comprises calculating the average atrial and ventricular rates using a first time period during which a number n of the atrial intervals is developed and a second time period during which a number m of the ventricular intervals is developed.

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18. The method of claim 12, wherein the predetermined number of the atrial and ventricular intervals is between 4 and 60 of the most recent atrial and ventricular intervals, respectively.

10 19. The method of claim 12, wherein the predetermined number of the atrial and ventricular intervals is about 10, respectively.

20. The method of claim 12, wherein the predetermined factor is at least 105 percent.

21. The method of claim 12, wherein:  
calculating the average atrial and ventricular rates further comprises calculating the average atrial and ventricular rates on a beat per minute basis using an average of the predetermined number of the atrial and ventricular intervals; and  
the predetermined factor is between 10 and 30 beats per minute.

22. The method of claim 12, wherein:  
calculating the average atrial and ventricular rates further comprises calculating the average atrial and ventricular rates on a beat per minute basis using an average of the predetermined number of the atrial and ventricular intervals; and  
the predetermined factor is about 20 beats per minute.

23. The method of claim 12, further comprising enabling delivery of atrial therapy if the average atrial rate exceeds the average ventricular rate by at least the predetermined factor.

24. A body implantable system, comprising:  
at least one lead comprising atrial and ventricular electrodes;  
a detector, coupled to the at least one lead, that senses atrial events and  
5 ventricular events; and  
a control circuit coupled to the detector, the control circuit calculating an average atrial rate and an average ventricular rate developed from a predetermined number of the atrial and ventricular intervals, respectively, the control circuit inhibiting delivery of atrial therapy if the average atrial rate fails to exceed the average ventricular  
10 rate by at least a predetermined factor.

25. The system of claim 24, wherein the control circuit calculates the average atrial and ventricular rates on a beat per minute basis using an average of the predetermined number of the atrial and ventricular intervals, respectively.

26. The system of claim 24, wherein the control circuit calculates the average atrial and ventricular rates on a beat per minute basis using a median of the predetermined number of the atrial and ventricular intervals, respectively.

27. The system of claim 24, wherein the control circuit calculates the average atrial and ventricular rates on a beat per minute basis using a mean of the predetermined number of the atrial and ventricular intervals, respectively.

28. The system of claim 24, wherein predetermined number of the atrial and ventricular intervals is between 4 and 60 of the most recent atrial and ventricular intervals, respectively.

29. The system of claim 24, wherein the predetermined number of the atrial and ventricular intervals is about 10, respectively.

30. The system of claim 24, wherein the predetermined factor is at least 105 percent.

31. The system of claim 24, wherein the control circuit calculates the average 5 atrial and ventricular rates on a beat per minute basis using an average of the predetermined number of the atrial and ventricular intervals, and the predetermined factor is between 10 and 30 beats per minute.

32. The system of claim 24, wherein the control circuit calculates the average 10 atrial and ventricular rates on a beat per minute basis using an average of the predetermined number of the atrial and ventricular intervals, and the predetermined factor is about 20 beats per minute.

33. The system of claim 24, wherein the control circuit enables delivery of 15 atrial therapy if the average atrial rate exceeds the average ventricular rate by at least the predetermined factor.

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